

REMARKS

The Examiner's Office Action of April 14, 2005 has been received and its contents reviewed. Applicants would like to thank the Examiner for the consideration given to the above-identified application.

By the above actions, claims 27-29, 31, 34, 36, 39, 43, 47 and 49 have been amended, new claims 52-63 have been added, and claims 1-26 were cancelled previously. Accordingly, claims 27-63 are pending for consideration, of which claims 27, 28, 39, 43, 47, 52 and 59 are independent. In view of these actions and the following remarks, reconsideration of this application is now requested.

Referring now to the detailed Office Action, claims 27-30, 34-35, 37 and 39-40 stand rejected under 35 U.S.C. §103(a) as unpatentable over Littman et al. (U.S. Patent No. 5,688,551 – hereafter Littman) in view of Imahashi et al. (U.S. Patent No. 5,529,630 – hereafter Imahashi). Further, claims 31, 33, 36, 37, 38 and 41-42 stand rejected under 35 U.S.C. §103(a) as unpatentable over Littman, in view of Imahashi, and further in view of Yamanaka et al. (U.S. Patent No. 6,504,215 B1 – hereafter Yamanaka). Still further, claims 43, 44, 47 and 48 stand rejected under 35 U.S.C. §103(a) as unpatentable over Nagashima et al. (Japanese Patent Abstracts 10-168559 – hereafter Nagashima), in view of Imahashi. Finally, claims 45 and 49-51 stand rejected under 35 U.S.C. §103(a) as unpatentable over Nagashima in view of Imahashi, and further in view of Yamanaka. These rejections are respectfully traversed at least for the reasons provided below.

Initially, Applicants note that claim 46 appears allowable, as Section 20, page 11 of the Office Action only admits to the deficiency of Nagashima and Imahashi in teaching or suggesting the claimed feature.

Turning now to the substantive rejections, in response to the §103(a) rejection of claims 27-42 over Littman and Imahashi, Applicants have amended independent claims 27, 28 and 39, as shown above. The amended claims recite “irradiating (i.e., heating) said substrate holder thereby sublimating said organic material, after removing the substrate”. Support for the amendment can be found at least on, e.g., line 11 and lines 16-22, page 7 of the specification. Applicants respectfully assert that both Littman and Imahashi do not disclose any irradiation step or heating step after removing a substrate.

In contrast with Applicants' claimed invention recited in amended claims 27, 28 and 39, Littman discloses forming EL layers by a close-spaced deposition technique (as disclosed in column 4, lines 34-38), and the close-spaced deposition technique is used to transfer a predetermined amount of materials from a donor sheet to a substrate receiver (as disclosed in column 7, lines 40-56) by activating the donor, and the activation process is usually thermal provided by focused light or localized heating elements (as disclosed in column 4, lines 50-56). That is, Littman uses focused light (an irradiation step) to form EL layers over a substrate. Therefore, the substrate is in the film formation chamber during the irradiation, which is unlike Applicants' claimed step of irradiating the substrate holder after removing the substrate from the film formation chamber as recited in amended independent claims 27, 28 and 39.

Further, Imahashi discloses that in the device 318, a laser annealing device applies a laser beam onto each target region on the substrate. Thereafter, the common transport unit 322 removes the substrate from the processing device 318 and transports it into the processing device 317 (see column 17, lines 14-22). That is, Imahashi discloses removing the substrate after irradiating a laser onto the substrate.

The requirements for establishing a *prima facie* case of obviousness, as detailed in MPEP § 2143 - 2143.03 (pages 2100-122 - 2100-136), are: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to combine the teachings; second, there must be a reasonable expectation of success; and, finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. Since both Littman and Imahashi fail to teach, disclose or suggest the step of irradiating (i.e., heating) the substrate holder thereby sublimating said organic material, after removing the substrate, the combination of these two references in the §103(a) rejection is improper.

With respect to the rejection of claims 43, 44, 47 and 48 over Nagashima and Imahashi, and with respect to the rejection of claims 45 and 49-51, the Examiner asserted that Nagashima discloses a semiconductor process substantially as claimed except removing the substrate from the chamber after forming the film. In response, without a detailed discussion by the Examiner regarding each and every claimed feature and the alleged corresponding features of Nagashima, Applicants presume that the adhesion preventing shield (claim 43) or

the substrate holder (claim 47) of the presently claimed invention corresponds to shutters 4 in FIG. 4 of Nagashima. Based on this presumption, Applicants respectfully traverse the rejections because Nagashima does not disclose forming a film comprising an organic material over the substrate wherein said organic material is simultaneously deposited on the adhesion preventing shield (i.e., “shutters” of Nagashima).

Further, Nagashima discloses “After the temperature of the organic materials reaches the predetermined temperature, the shutters 4 and the main shutter 11 are opened, and then the organic materials are evaporated and deposited on the substrate 8 ” (as shown in paragraph [0043] of the submitted full translation of Nagashima). That is, in Nagashima, the organic material is not simultaneously deposited on the shutters when forming a film comprising an organic material over the substrate, because the shutters are open.

Further, Applicants have amended claims 43 and 47, as shown above, to further recite irradiating said substrate holder (or heating said adhesion preventing shield) provided in a film-formation chamber after removing the substrate from the film formation chamber. Therefore, as Nagashima and Imahashi fail to teach, disclose or suggest irradiating (heating) said substrate holder thereby sublimating said organic material, after removing the substrate from the film formation chamber, the combination of Nagashima and Imahashi is improper.

With respect to the rejection with Yamanaka cited as a secondary reference, the amendments and arguments set forth above with respect to the independent claims are also applicable.

New claims 52-63 have been added to further complete the scope of the invention to which Applicants are entitled.

In view of the amendments and arguments set forth above, Applicants respectfully request reconsideration and withdrawal of all the pending §1-3(a) rejections.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise, which could be eliminated through discussions with Applicants' representative, then the Examiner is invited to contact the undersigned by telephone in order that the further prosecution of this application can thereby be expedited.

Respectfully submitted,



Luan C. Do
Registration No. 38,434

NIXON PEABODY LLP
Suite 900, 401 9th Street, N.W.
Washington, D.C. 20004-2128
(202) 585-8000